

# An Overview of TMDLs

PCB Informational Meeting  
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Margaret Smigo – PRO TMDL Coordinator





# *What is a TMDL?*

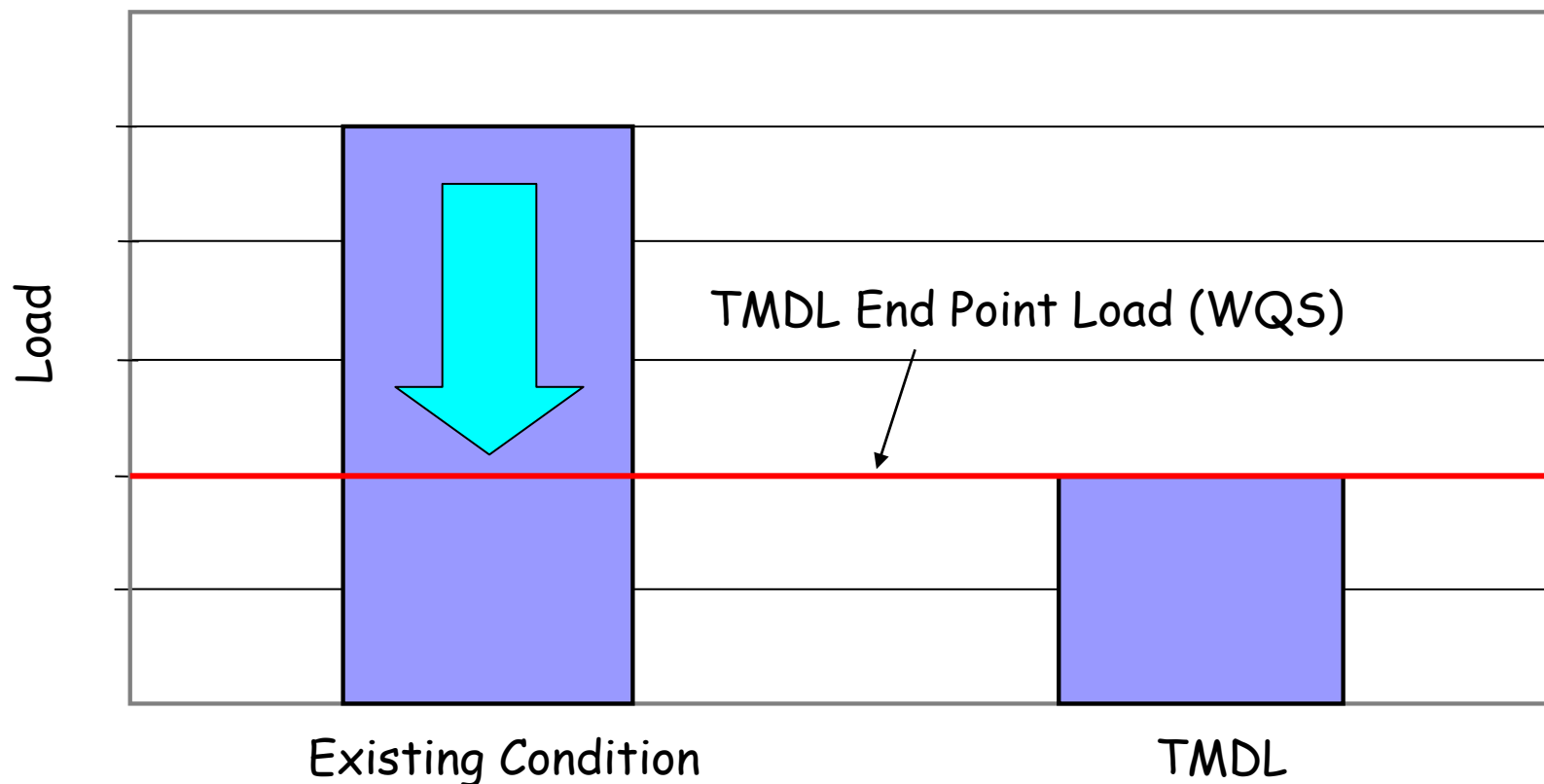
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**TMDL = Total Maximum Daily Load =  
maximum amount of a pollutant  
that can exist in a waterbody  
without violating water quality  
standards (WQS)**



**WQS = numeric or narrative limits on  
pollutants that ensure the  
protection of human health and of  
aquatic life**

# *An Example TMDL*







**Reducing existing bacteria load to the TMDL end point load is expected to restore water quality.**

# *Why are TMDL studies necessary?*

- ❑ TMDLs must be developed for water bodies that do not meet water quality standards for their designated use (impaired waters). Federal and State Laws:
  - 1972 Clean Water Act (CWA), Section 303(d)
  - 1997 Water Quality Monitoring, Information and Restoration Act (WQMIRA)
  - 1999 Consent Decree due to American Canoeist Association Lawsuit
- ❑ Examples of Designated Uses:
  - Primary Contact (Swimming)
  - Aquatic life
  - Fish consumption
  - Public water supply
  - Shellfish consumption
  - Wildlife
- ❑ Impaired waters occur throughout Virginia in lakes, streams, and tidal waters.
  - Visit <http://www.deq.virginia.gov/wqa/ir2008.html> for DEQ's 2008 Integrated Assessment Report
- ❑ Based on DEQ 2008 Report ~1100 TMDLs due by 2022

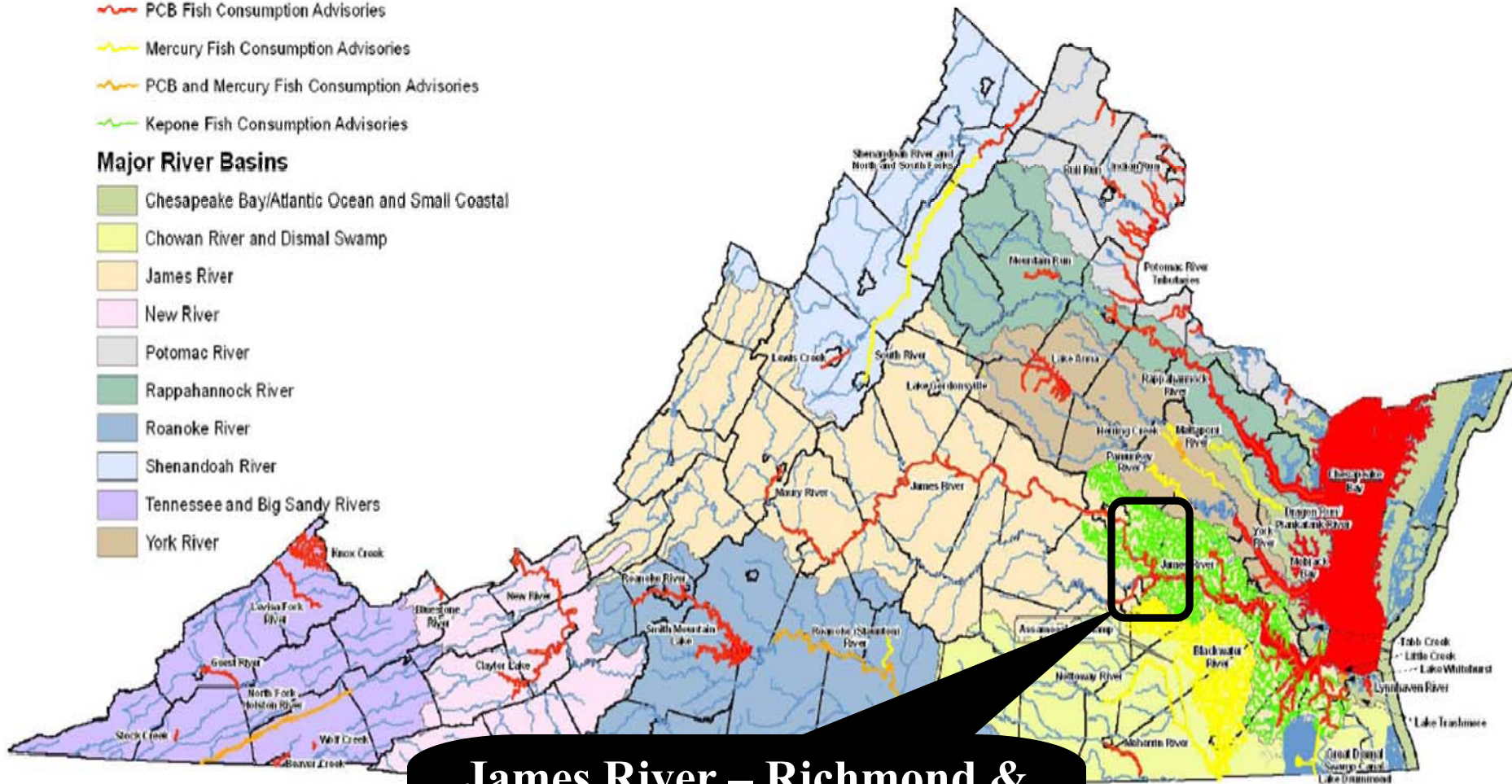
# Waters Under VDH Fish Consumption Advisories

## Identified in 2008 305(b)/303(d) Water Quality Integrated Report

-  PCB Fish Consumption Advisories
-  Mercury Fish Consumption Advisories
-  PCB and Mercury Fish Consumption Advisories
-  Kepone Fish Consumption Advisories

### Major River Basins

-  Chesapeake Bay/Atlantic Ocean and Small Coastal
-  Chowan River and Dismal Swamp
-  James River
-  New River
-  Potomac River
-  Rappahannock River
-  Roanoke River
-  Shenandoah River
-  Tennessee and Big Sandy Rivers
-  York River



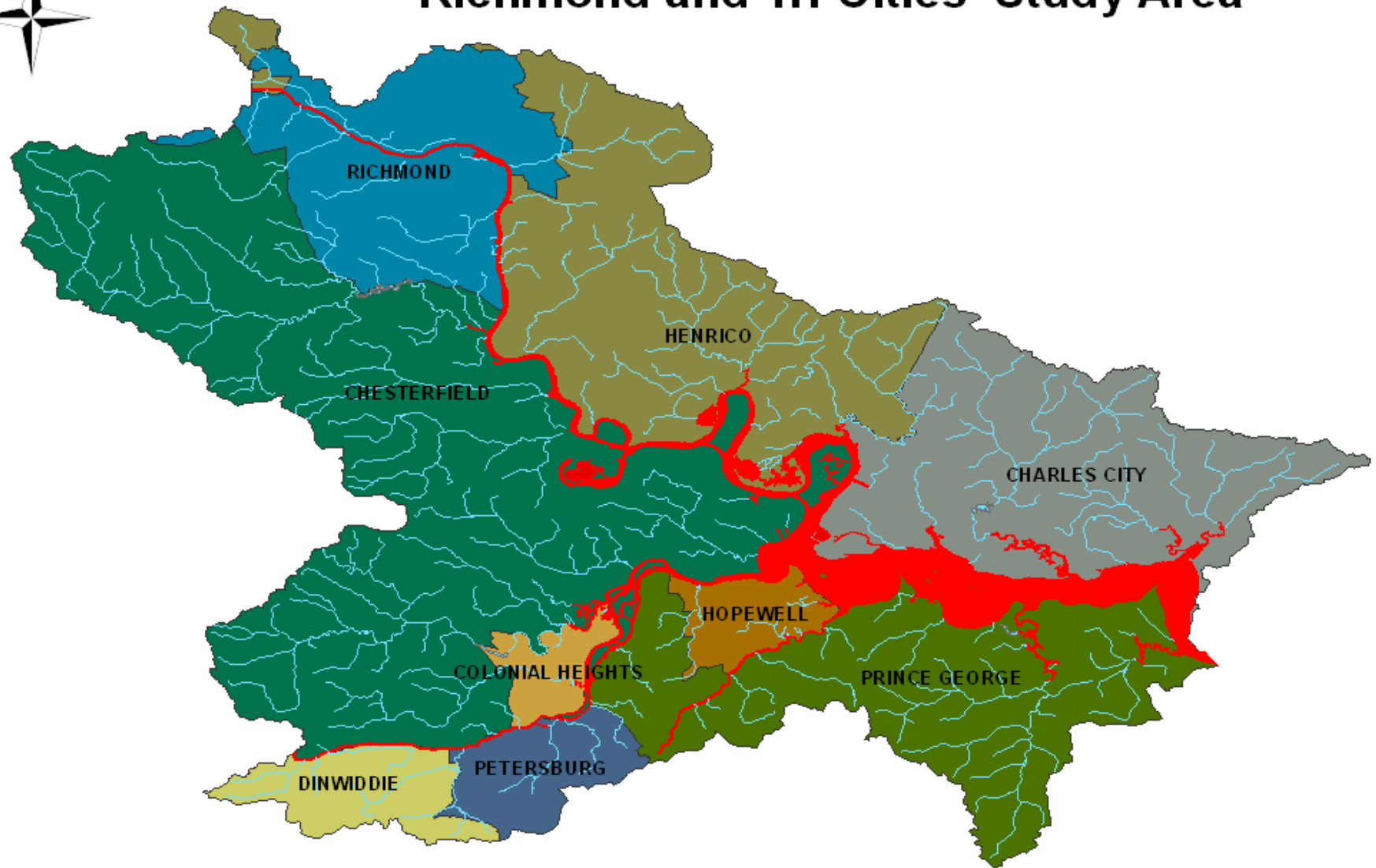
**James River – Richmond &  
Tri-Cities PCB Study Area  
TMDL Due 2014**



Sources: Virginia Department of Health  
Virginia Department of Environmental Quality  
Virginia Department of Conservation and Recreation  
United States Geological Survey



# PCB Impaired Waters in James River & Tributaries - Richmond and Tri-Cities Study Area



0 1.5 3 6 9 12 Miles

# Questions About TMDL Development?

**Presentations and Handouts Available at:**  
<http://www.deq.virginia.gov/tmdl>

**DEQ PCB Website:**  
<http://www.deq.virginia.gov/tmdl/pcb.html>